

# SEQUENCE LISTING



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<120> GENES AND AGENTS TO REGULATE FOLLICULAR DEVELOPMENT, OVULATION  
 CYCLE AND STERIOGENESIS

<130> 050229-0424

<140> 10/736,892

<141> 2003-12-17

<150> 60/437,729

<151> 2003-01-03

<160> 13

<170> PatentIn version 3.3

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<213> Artificial Sequence

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21

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<212> DNA

<213> Artificial Sequence

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<400> 2

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<213> Artificial Sequence

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 <400> 6  
 ggacagagtc ttgatgatct c 21

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 <212> DNA  
 <213> Rattus norvegicus

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 tccgcagctc cagcctctctc atcccgcgcc tggaggccgc actggccaac ttctccaaag 120  
 gtcccgcagg aggggtcatg caaccggtgc gcaccgtggt gcctgtggcc aagcaccgag 180  
 gcttcttggg agtcatgcc aacctacagt cgcgtgagga tgcactcacc accaagttag 240  
 tcaccttcta tgaggggccac agcaacaatg ctgtcccctc ccaccaggca tcagtgcctc 300  
 tctttgatcc cagcaatggt tccctgctgg cgggtcatgga tggaaatgtc ataactgcaa 360  
 agaggacagc agccgtctct gccatcgcca ccaagttttt gaagccccca ggcagtgatg 420  
 tgctgtgcat tcttggggct ggggtccagg cgtacagtca ctatgagatc ttcacagaac 480

agttctcctt caaggaggtg agaatgtgga accgcaccag ggaaaatgct gagaagtttg 540  
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 ccgatgtcat catcacagtc accatggcaa cggagcccat tttatttggt gaatgggtga 660  
 agcccggggc tcacatcaat gctggttgag ccagtagacc tgactggcga gaactggatg 720  
 acgagctcat gaagcaagca gtgctgtatg tggactcccg ggaggctgcc ctaaaggagt 780  
 caggagatgt tctgttgtca ggggctgaca tctttgctga gcttggagaa gtggtttcag 840  
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 aggacctggt cgcagccaaa ttagtgtacg attcgtggtc atctggcaag tgagcagaag 960  
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<210> 8  
 <211> 313  
 <212> PRT  
 <213> Rattus norvegicus

<400> 8

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Leu Arg Ser Ser Ser Leu Leu Ile Pro Pro Leu Glu Ala Ala Leu Ala  
20 25 30

Asn Phe Ser Lys Gly Pro Asp Gly Gly Val Met Gln Pro Val Arg Thr  
35 40 45

Val Val Pro Val Ala Lys His Arg Gly Phe Leu Gly Val Met Pro Ala  
50 55 60

Tyr Ser Ala Ala Glu Asp Ala Leu Thr Thr Lys Leu Val Thr Phe Tyr  
65 70 75 80

Glu Gly His Ser Asn Asn Ala Val Pro Ser His Gln Ala Ser Val Leu  
85 90 95

Leu Phe Asp Pro Ser Asn Gly Ser Leu Leu Ala Val Met Asp Gly Asn  
100 105 110

Val Ile Thr Ala Lys Arg Thr Ala Ala Val Ser Ala Ile Ala Thr Lys  
115 120 125

Phe Leu Lys Pro Pro Gly Ser Asp Val Leu Cys Ile Leu Gly Ala Gly  
130 135 140

Val Gln Ala Tyr Ser His Tyr Glu Ile Phe Thr Glu Gln Phe Ser Phe  
145 150 155 160

Lys Glu Val Arg Met Trp Asn Arg Thr Arg Glu Asn Ala Glu Lys Phe  
165 170 175

Ala Ser Ser Val Gln Gly Asp Val Arg Val Cys Ser Ser Val Gln Glu  
180 185 190

Ala Val Thr Gly Ala Asp Val Ile Ile Thr Val Thr Met Ala Thr Glu  
195 200 205

Pro Ile Leu Phe Gly Glu Trp Val Lys Pro Gly Ala His Ile Asn Ala  
210 215 220

Val Gly Ala Ser Arg Pro Asp Trp Arg Glu Leu Asp Asp Glu Leu Met  
225 230 235 240

Lys Gln Ala Val Leu Tyr Val Asp Ser Arg Glu Ala Ala Leu Lys Glu  
245 250 255

Ser Gly Asp Val Leu Leu Ser Gly Ala Asp Ile Phe Ala Glu Leu Gly  
260 265 270

Glu Val Val Ser Gly Ala Lys Pro Ala Tyr Cys Glu Lys Thr Thr Val  
275 280 285

Phe Lys Ser Leu Gly Met Ala Val Glu Asp Leu Val Ala Ala Lys Leu  
290 295 300

Val Tyr Asp Ser Trp Ser Ser Gly Lys  
305 310

<210> 9  
<211> 313  
<212> PRT

<213> Mus musculus

<400> 9

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Leu Arg Ser Ser Ser Leu Leu Ile Pro Pro Leu Glu Ala Ala Leu Ala  
20 25 30

Asn Phe Ser Lys Gly Pro Asp Gly Gly Val Met Gln Pro Val Arg Thr  
35 40 45

Val Val Pro Val Ala Lys His Arg Gly Phe Leu Gly Val Met Pro Ala  
50 55 60

Tyr Ser Ala Ala Glu Asp Ala Leu Thr Thr Lys Leu Val Thr Phe Tyr  
65 70 75 80

Glu Gly His Ser Asn Thr Ala Val Pro Ser His Gln Ala Ser Val Leu  
85 90 95

Leu Phe Asp Pro Ser Asn Gly Ser Leu Leu Ala Val Met Asp Gly Asn  
100 105 110

Val Ile Thr Ala Lys Arg Thr Ala Ala Val Ser Ala Ile Ala Thr Lys  
115 120 125

Leu Leu Lys Pro Pro Gly Ser Asp Val Leu Cys Ile Leu Gly Ala Gly  
130 135 140

Val Gln Ala Tyr Ser His Tyr Glu Ile Phe Thr Glu Gln Phe Ser Phe  
145 150 155 160

Lys Glu Val Arg Met Trp Asn Arg Thr Arg Glu Asn Ala Glu Lys Phe  
165 170 175

Ala Ser Thr Val Gln Gly Asp Val Arg Val Cys Ser Ser Val Gln Glu  
180 185 190

Ala Val Thr Gly Ala Asp Val Ile Ile Thr Val Thr Met Ala Thr Glu  
195 200 205

Pro Ile Leu Phe Gly Glu Trp Val Lys Pro Gly Ala His Ile Asn Ala

210                      215                      220  
 Val Gly Ala Ser Arg Pro Asp Trp Arg Glu Leu Asp Asp Glu Leu Met  
 225                      230                      235                      240  
 Arg Gln Ala Val Leu Tyr Val Asp Ser Arg Glu Ala Ala Leu Lys Glu  
                     245                      250                      255  
 Ser Gly Asp Val Leu Leu Ser Gly Ala Asp Ile Phe Ala Glu Leu Gly  
                     260                      265                      270  
 Glu Val Ile Ser Gly Ala Lys Pro Ala His Cys Glu Lys Thr Thr Val  
                     275                      280                      285  
 Phe Lys Ser Leu Gly Met Ala Val Glu Asp Leu Val Ala Ala Lys Leu  
                     290                      295                      300  
 Val Tyr Asp Ser Trp Ser Ser Gly Lys  
 305                      310

<210> 10  
 <211> 314  
 <212> PRT  
 <213> Homo sapiens

<400> 10

Met Ser Arg Val Pro Ala Phe Leu Ser Ala Ala Glu Glu Glu Asp His  
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                     20                      25                      30  
 Asn Phe Ser Ser Gly Glu Asp Gly Gly Val Met Gln Pro Val Arg Thr  
                     35                      40                      45  
 Val Val Pro Val Thr Lys His Arg Gly Tyr Leu Gly Val Met Pro Ala  
                     50                      55                      60  
 Tyr Ser Ala Ala Glu Asp Ala Leu Thr Thr Lys Leu Val Thr Phe Tyr  
 65                      70                      75                      80  
 Glu Asp Arg Gly Ile Thr Ser Val Val Pro Ser His Gln Ala Thr Val  
                     85                      90                      95

Leu Leu Phe Glu Pro Ser Asn Gly Thr Leu Leu Ala Val Met Asp Gly  
100 105 110

Asn Val Ile Thr Ala Lys Arg Thr Ala Ala Val Ser Ala Ile Ala Thr  
115 120 125

Lys Phe Leu Lys Pro Pro Ser Ser Glu Val Leu Cys Ile Leu Gly Ala  
130 135 140

Gly Val Gln Ala Tyr Ser His Tyr Glu Ile Phe Thr Glu Gln Phe Ser  
145 150 155 160

Phe Lys Glu Val Arg Ile Trp Asn Arg Thr Lys Glu Asn Ala Glu Lys  
165 170 175

Phe Ala Asp Thr Val Gln Gly Glu Val Arg Val Cys Ser Ser Val Gln  
180 185 190

Glu Ala Val Ala Gly Ala Asp Val Ile Ile Thr Val Thr Leu Ala Thr  
195 200 205

Glu Pro Ile Leu Phe Gly Glu Trp Val Lys Pro Gly Ala His Ile Asn  
210 215 220

Ala Val Gly Ala Ser Arg Pro Asp Trp Arg Glu Leu Asp Asp Glu Leu  
225 230 235 240

Met Glu Gln Ala Val Leu Tyr Val Asp Ser Gln Glu Ala Ala Leu Lys  
245 250 255

Glu Ser Gly Asp Val Leu Leu Ser Gly Ala Glu Ile Phe Ala Glu Leu  
260 265 270

Gly Glu Val Ile Lys Gly Val Lys Pro Ala His Cys Glu Lys Thr Thr  
275 280 285

Val Phe Lys Ser Leu Gly Met Ala Val Glu Asp Thr Val Ala Ala Lys  
290 295 300

Leu Ile Tyr Asp Ser Trp Ser Ser Gly Lys  
305 310

<210> 11  
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 <212> DNA  
 <213> Rattus norvegicus

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 aactgtcaac ataggttoga tcagtacagc ggatggctct gctctagtga agctggggaa 180  
 caccacagtc atttgtggag ttaaagcaga atttgcagca ccaccagtag atgccctga 240  
 tagaggatat gtcgtcccta atgtggacct accaccgctg tgttcacoga ggtttcggac 300  
 tggacctcct ggagaagagg ctcaagtaac cagccagttc attgcagatg tcattgagaa 360  
 ctcacacata attaagaaag aggacttatg catttctcca gggaagcttg cttgggttct 420  
 atactgtgac cttatttgcc tagactacga tgggaacatt ttggatgcct gcacatttgc 480  
 tttgttagca gctttaaaga atgtacagtt gcctgaagtt actataaatg aagaaactgc 540  
 tttagcggaa gtcaatttaa agaagaaaag ttatttgaat gttagagcaa acccagttgc 600  
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 gcaccctgtc cacaggaacc ttaaccgtag taatggacga ggaaggcaag ctgtgctgtc 720  
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 agtaacgaga cacaagaag tgagcaaact actggatgaa gtaattcaga gcatgaaaca 840  
 caaatgaaca gacgccacga ttgtaaaaca gctgtaaaaa ttgtatttgt tacactgtgc 900  
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<210> 12  
 <211> 276  
 <212> PRT  
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<400> 12  
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 Phe Leu Lys Glu Asn Cys Arg Pro Asp Gly Arg Glu Leu Gly Glu Phe  
 20 25 30  
 Arg Thr Thr Thr Val Asn Ile Gly Ser Ile Ser Thr Ala Asp Gly Ser



35

40

45

Ala Leu Val Lys Leu Gly Asn Thr Thr Val Ile Cys Gly Val Lys Ala  
50 55 60

Glu Phe Ala Ala Pro Pro Val Asp Ala Pro Asp Arg Gly Tyr Val Val  
65 70 75 80

Pro Asn Val Asp Leu Pro Pro Leu Cys Ser Ser Arg Phe Arg Thr Gly  
85 90 95

Pro Pro Gly Glu Glu Ala Gln Val Thr Ser Gln Phe Ile Ala Asp Val  
100 105 110

Ile Glu Asn Ser His Ile Ile Lys Lys Glu Asp Leu Cys Ile Ser Pro  
115 120 125

Gly Lys Leu Ala Trp Val Leu Tyr Cys Asp Leu Ile Cys Leu Asp Tyr  
130 135 140

Asp Gly Asn Ile Leu Asp Ala Cys Thr Phe Ala Leu Leu Ala Ala Leu  
145 150 155 160

Lys Asn Val Gln Leu Pro Glu Val Thr Ile Asn Glu Glu Thr Ala Leu  
165 170 175

Ala Glu Val Asn Leu Lys Lys Lys Ser Tyr Leu Asn Val Arg Ala Asn  
180 185 190

Pro Val Ala Thr Ser Phe Ala Val Phe Asp Asp Thr Leu Leu Ile Val  
195 200 205

Asp Pro Thr Gly Glu Glu Gly His Pro Val His Arg Asn Leu Asn Arg  
210 215 220

Ser Asn Gly Arg Gly Arg Gln Ala Val Leu Ser Ser Gln Ala Arg Trp  
225 230 235 240

Glu Trp Ala Ala Gly Ala Lys Leu Gln Asp Cys Met Ser Arg Ala Val  
245 250 255

Thr Arg His Lys Glu Val Ser Lys Leu Leu Asp Glu Val Ile Gln Ser  
260 265 270

Met Lys His Lys  
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<210> 13  
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<212> DNA  
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tcgatcagta cagcggatgg ctctgctcta gtgaagctgg ggaacaccac agtcatttgt 180  
ggagttaaag cagaatttgc agcaccacca gtagatgcc ctgatagagg atatgtcgtc 240  
cctaattgtg acctaccacc gctgtgttca tcgaggtttc ggactggacc tcctggagaa 300  
gaggctcaag taaccagcca gttcattgca gatgtcattg agaactcaca cataattaag 360  
aaagaggact tatgcatttc tccaggaag cttgcttggg ttctatactg tgaccttatt 420  
tgcctagact acgatgggaa cattttggat gcctgcacat ttgctttgtt agcagcttta 480  
aagaatgtac agttgcctga agttactata aatgaagaaa ctgcttttagc ggaagtcaat 540  
ttaaagaaga aaagttattt gaatgttaga gcaaaccag ttgctacttc atttgctgtg 600  
tttgatgaca ctttgctgat agtcgatcct accggggagg aggggcaccc tgtccacagg 660  
aaccttaacc gtagtaatgg acgaggaagg caagctgtgc tgtcttcaca agccaggtgg 720  
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gaagtgagca aactactgga tgaagtaatt cagagcatga aacacaaa 828